

Use of amphiphilic copolymers to stabilise dispersions of non-soluble organic compounds filtering UV light

Publication number: EP1302197 (A1)

Publication date: 2003-04-16

Inventor(s): CANDAU DIDIER [FR]; AUBERT FABIEN [FR]

Applicant(s): OREAL [FR]

Classification:

- international: **A61K8/30; A61K8/00; A61K8/19; A61K8/29; A61K8/35; A61K8/42; A61K8/46; A61K8/49; A61K8/72; A61K8/81; A61K8/86; A61K8/90; A61Q5/00; A61Q17/04; A61Q19/00; B01F17/42; C08F293/00; A61K8/30; A61K8/00; A61K8/19; A61K8/72; A61Q5/00; A61Q17/04; A61Q19/00; B01F17/42; C08F293/00; (IPC1-7): A61K7/42; B01F17/42**

- European: A61K8/90; A61Q17/04

Application number: EP20020292445 20021004






Priority number(s): FR20010013114 20011011

Also published as:

 US2003129151 (A1)
 US6818206 (B2)
 KR20030030980 (A)
 JP2006282672 (A)
 JP2003137719 (A)

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Cited documents:

 EP1068866 (A2)
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Abstract of EP 1302197 (A1)

The use of amphiphilic copolymers (I), containing at least one hydrophilic sequence and at least one hydrophobic sequence, is claimed for stabilizing (preferably aqueous) dispersions of insoluble organic compounds (II) containing at least one UV absorbing group and in the form of particles having an average size of 0.01-5 μm . <??>Independent claims are also included for the following: <??>(1) preparation of the stabilized dispersions by dispersing particles of (II) in a liquid medium, reducing the average size of the particles to 0.01-5 μm (preferably by milling in an aqueous medium) and adding (I) before, during or after the size reduction stage; and <??>(2) the stabilized dispersions where (I) are selected from: <??>(a) polyalkoxylated aliphatic alcohols of formula (IA); <??>(b) trisequenced ethylene oxide (EO)-propylene oxide (PO) copolymers of formula (IB); ; <??>(c) ethylene diamine-sequenced EO/PO copolymer condensation products of formula (IC); <??>(d) sequenced styrene-EO copolymers; <??>(e) polyethoxylated polyolefin-succinates, especially polyethoxylated polyisobutylene-succinates of formula (ID); and <??>(f) sequenced (meth)acrylic acid, 10-30C alkyl (meth)acrylate, polyethylene glycol (meth)acrylate terpolymers. <??>n = 5-20 (preferably 7-19); <??>x, y = 2-20 (preferably 4-10); <??>y + z = 2-20 (preferably 2-12); <??>a, c = 2-150; <??>b = 10-80; <??>PIB = polyisobutylene chain; <??>d = 2-15 (preferably 7-10); <??>e = 2-15 (preferably 2-6).; The use of amphiphilic copolymers (I), containing at least one hydrophilic sequence and at least one hydrophobic sequence, is claimed for stabilizing (preferably aqueous) dispersions of insoluble organic compounds (II) containing at least one UV absorbing group and in the form of particles having an average size of 0.01-5 microns.; Independent claims are also included for the following: (1) preparation of the stabilized dispersions by dispersing particles of (II) in a liquid medium, reducing the average size of the particles to 0.01-5 microns (preferably by milling in an aqueous medium) and adding (I) before, during or after the size reduction stage; and (2) the stabilized dispersions where (I) are selected from: (a) polyalkoxylated aliphatic alcohols of formula (IA); (b) trisequenced ethylene oxide (EO)-propylene oxide (PO) copolymers of formula (IB); (c) ethylene diamine-sequenced EO/PO copolymer condensation products of formula (IC); (d) sequenced styrene-EO copolymers; ; (e) polyethoxylated polyolefin-succinates, especially polyethoxylated polyisobutylene-succinates of formula (ID); and (f) sequenced (meth)acrylic acid, 10-30C alkyl (meth)acrylate, polyethylene glycol (meth)acrylate terpolymers. n = 5-20 (preferably 7-19); x, y = 2-20 (preferably 4-10); y + z = 2-20 (preferably 2-12); a, c = 2-150; b = 10-80; PIB = polyisobutylene chain; d = 2-15 (preferably 7-10); e = 2-15 (preferably 2-6).

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